Lecteur n2

1st YEAR
DEPARTMENT: Science and Technology
MODULE : ENGLISH

Lecture N°02

Telecommunication
(Part one)

Telecommunications technology transmits information by **electromagnetic** means over media such as telephone **wires** or radio **waves**. The information may be voice, facsimile, data, radio, or television signals. The electronic **signals** that are transmitted can be either **analogue** or **digital.** The advantages of digital transmission are high reliability and low cost. Digital **switching systems** are much cheaper than analogue systems.

In analogue **modulation**, the signals are transmitted directly (without converting them to digital form) by **amplitude modulation** or **frequency modulation**. For digital transmission the analogue signals must be converted to a digital form. Then the digitized signal is passed through a **source encoder**, which **reduces redundant binary information**. After source encoding, the digitized signal is processed in a channel **encoder**, which introduces redundant information that allows errors (**degradation** by **noise** or **distortion**) to be detected and corrected.

The encoded signal is made suitable for transmission by modulation onto a **carrier wave**. When a signal reaches its destination, the device on the receiving end converts the **electronic** signal bake into an understandable message - sound on a telephone, images on a television, or words and pictures on a computer.

signals	**إشارات**
Analogue	**النظير**

telephone wires	**أسلاك الهاتف**
waves	**أمواج**
electromagnetic	**مغنطيسي كهربائي**
digital	**رقمي**
switching system	**نظام التحويل**
amplitude modulation	**تعديل السعة**
frequency modulation	**تعديل التردد**
source encoder	**التشفير مصدر**
reduce redundant binary information	**تقليل معلومات ثنائية زائدة**
degradation	**تهتك**
noise	**ضجيج**
Distortion	**تشويه**
carrier wave	**الموجة الحاملة**
electronic	**إلكتروني**
Lecteur n3	

1st YEAR
DEPARTMENT: Science and Technology
MODULE: ENGLISH

Lecture N°03

Task N°02:

Match a word in the left-hand column with a word on the right to form ten phrases from the field of telecommunications.

answering	antenna
radio	camera
video	jack
relay	machine
cable	messages
television	phone
retrieve	set
transmitting	signal
cordless	station
telephone	television

Now complete the following sentences using phrases from the table opposite.

1 The telephone can be used to pay bills and Retrieve messag from answering machine

2 With an omnidirectional antenna, transmitting signal can be transmitted over a wide area.

3 A videophone incorporates a video camera and display, a microphone and speaker.

4 A Cordless phone allows limited mobility in and around the home.

5 telephone jack allows access to many television stations.

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Lecture N°03

Exercises:

Task N°01: **Circle *all* the correct answers that apply.**

1- **A telecommunication system can transfer:**
a) Voice b) pictures c) computer files d) energy

2- **A telephone is an instruments used for:**
a) Sending messages b)switching messages c) receiving messages d) retrieving messages

3- **Broadcast signal can be:**
a) Tactile b) audible c)visual d) combination of all three

4- **A video phone combines:**
a) A video camera b) a display c) a microphone d) a speaker

5- **Fax can be used to transmit:**
a) Sounds b) moving pictures c) drawings d) images

6- **A cordless phone**
a) Plugs into a jack b) allows unlimited mobility c) can be used within the home d) is portable

telecommunication system can transfer	**نظام الاتصالات السلكية واللاسلكية يمكن ان ينقل**
picture	**صورة**

instrument	صك بريدي
sending	ارسال
receiving	استقبال
switching	تحويل او تبديل
retrieving	استرجاع
broadcast signal	اشارات البث
tactile	لمسي
audible	مسموع
visual	بصري
combination of all three	مزيج من كل الثلاثة
display	عرض
drawing	رسم
Cordless phone	هاتف لاسلكي
plugs into jack	المقبس للمقبس
allows unlimited mobility	يسمح بالاتصال غير المحدود
can be used within the home	يمكن استخدامه داخل المنزل
answering machine	جهاز الرد الآلي
radio antenna	هوائي الراديو
relay station	محطة التقوية

cable television	كابل التلفزيون
televesion set	جهاز التلفزيون
retrive message	استرداد الرسالة
transmitting signal	اشارة الارسال
cordless phone	هاتف لاسلكي
Telephone jack	مقبس الهاتف
Lecteur n 4	

1st YEAR
DEPARTMENT: Science and Technology
MODULE: ENGLISH Lecture N°04

Chemical

The chemical industry covers the business that uses chemical **reactions** to turn raw materials, such as **coal**, **oil**, and **salt**, into different products. Technological advances in the chemical industry have dramatically altered the world's economy. Chemical **processes** have created **pesticides** and **fertilizers** for farmers, **pharmaceuticals** for the health care industry, **synthetic dyes** and **fibers** for the textile industry, **soaps** and **beauty aids** for the cosmetics industry, synthetic **sweeteners** and **flavors** for the food industry, **plastics** for the packaging industry, **chemicals** and **celluloid** for the motion picture industry, and **artificial rubber** for the automotive industry. The chemical industry includes makers of more than 70,000 different chemicals, with global sales worth more than €1.1 trillion.
Chemicals can be broken down into:

- *basic and intermediate chemicals*
- *agricultural chemicals*
- *paints and coatings*
- *specialty Chemicals*

Some basic and intermediate chemicals

acids • alcohols • alkalis • aromatics • benzene • carbonates
chlorides • ethylene • fluorides • industrial gases • methanol
nitrates • olefins • oxides • polyethylene • polypropylene

Agricultural chemicals

fungicide • herbicide • insecticide • nutrient management
pest management • pesticide • soil management • sustainable production systems

Features of plastics and fibres

easy flow • flame resistant • flame-retardant
heat resistant • stiff • tough • transparent

chemical industry	**الصناعات الكيماوية**
reaction	**رد فعل**

raw material	**مواد خام**
coal	**فحم**
oil	**نفط**
salt	**ملح**
dramatically	**بشكل كبير**
altered	**تغيير**
processes	**العمليات**
pesticides	**مبيدات حشرية**
fertilizers	**الأسمدة**
farmers	**المزارعين**
pharmaceuticals	**الأدوية**
health	**الصحة**
care	**رعاية**
synthetic dyes	**الأصباغ الاصطناعية**
fibers	**ألياف**
textile	**الغزل والنسيج**
soaps	**الصابون**
beauty aids	**مساحيق التجميل**
sweeteners	**الحلويات**

flavors	نكهات
packaging	التعبئة والتغليف
celluloid	شريط سنمائي
motion	حركة
artificial rubber	المطاط الاصطناعي
automotive	السيارات
includes	يشمل
global sales worth	قيمة المبيعات العالمية
basic and intermediate chemicals	المواد الكيميائية الأساسية والوسيطة
agricultural chemicals	المواد الكيميائية الزراعية
paints and coatings	الدهانات ومواد الطلاء
features	الميزات
Easy flow	سهل التدفق
flame resistant	مقاوم للهب
flame retardant	مقاوم للتعوق
heat resistant	مقاوم للحرارة
stiff	صلب
tough	قاسي
transparent	شفاف

pest	آفات

Lecteur n 6

1st YEAR
DEPARTMENT: Science and Technology
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Lecture N°06

Choose the appropriate relative pronoun in each of the following sentences.

1 A load-bearing wall is a wall **that/where** supports a vertical load as well as its own weight.

2 An architect is someone **whose/who** draws up plans for buildings and other structures.

3 An unheated building, a cellar or a basement are examples of places **which/where** are often damp.

4 Manufacturing takes place in factories **when/where** finished products are made.

5 Marconi was the scientist **who/whom** first received signals across the Atlantic.

6 You are invited to attend the meeting on Tuesday **which/when** details of the project will be discussed.

7 The company has opened a new workshop **where/which** engineering parts will be produced.

8 The operations manager, **whom/whose** office is on the first floor, is dealing with the problem.

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1. that
2. who
3. which
4. where
5. whom
6. when
7. where
8. whose

who	person تعوض

Whom	**person تعوض**
Whose	**person تعوض** **thing تعوض**
Whiche	**thing تعوض**
Where	**place تعوض**
When	**time تعوض**
that	**thing تعوض**